

eleven genera. Copious synonymic details are given. Of the restricted genus *Phoca*, three—*P. vitulina*, *P. Groenlandica*, and *P. fatida*—are marine, and frequent the northern oceans, never descending anywhere near to the equator. A fourth, *P. Caspica*, is found in the Aral and Caspian Seas, and a fifth, *P. Sibirica*, is from Lakes Baikal and Oron. *Monachus albiventer* occupies an intermediate position (Mediterranean, Madras, and Canary Islands) between these northern forms and the Antarctic species, such as *Macrorhinus leoninus*, *Ogmorhinus leptonyx*, *Ommatophoca rossi*, and the like. All the species have strong social instincts, and are almost unsurpassed in their affection for their young. Most of them are gregarious; few of them are in the least ferocious; they are in general patient and submissive creatures, quite harmless to man. Fond of basking in sunshine, they spend a good deal of their time out of the water, on bank, rock, or ice. They are very voracious, eating fishes, or in lack of these, mollusks and crustacea. Strange though it may seem, the young seals take to the water reluctantly, and have to be actually taught to swim by their parents. The young of some species remain on the ice until they are from two to three weeks old, or until they have shed their first soft woolly coat of hair; their cry is more of a bark than a roar; that of the young is a kind of tender bleat, putting one in mind of the cry of a young child. Dr. Murie (*Proc. Zool. Soc. London*, 1870) has characterised three distinct modes of terrestrial locomotion among these Seals, from which it would appear that the Phocine Seals generally have considerable power of movement upon land.

The Seal-hunting districts are described at length; the oil and skins of these Seals having a large commercial importance. The Dundee sealers took in 1876 nearly 40,000*l.* worth. The habits of the various species form a most interesting portion of this division of the volume, and the author seems to have ransacked every treatise on the subject so as to make his own complete. This history of the North American Pinnipeds will long remain a perfect monograph of a valuable and important group of mammalia.

CATALOGUE OF NEWCASTLE LIBRARIES

Newcastle-upon-Tyne Public Libraries. Catalogue of the Books in the Central Lending Department. Compiled by W. John Haggston, Chief Librarian. (Newcastle-upon-Tyne: 1880.)

NO portion of a book draws more heartfelt commendation or more earnest rebuke from a critic who has read it, not for the purpose of criticising, but for that of using its information, than the index. Only the reader who picks up a book for recreation and amusement feels at all independent of it; and even he appreciates its importance if any future reference is required. And if a good table of contents is so requisite in the case of a single book, how far more so must one be in a large library.

We have here a new catalogue of a new library, a selection of 20,000 volumes of books chosen for their readable value only (which perhaps justifies the omission of all dates of publication of the books, which would be a

fault in a catalogue of most libraries), and consequently we may look to it as a model of what a catalogue should be. And we shall not be disappointed. It is drawn up on the same scientific principles worked out so fully in Dr. Billing's catalogue of the U.S. Surgeon-General's Office, which we noticed lately; and these so well worked out too, that really it is a table of contents of the library; the matter contained in the volumes of the latter as well as their titles are all laid before us. Each work is entered under the author's name, under the title, and, in cases where that title is compound, under each of the subjects it may include. Under the heading of each principal subject treated a reference is again given to the work with its library number, and so numerous are these cross references that on an average every volume throughout the library appears four times over. Indefinite titles are rectified by a summary being given, in a smaller type, of the matters discussed.

Catalogues which limit themselves rigidly to the contents of the title-page abandon all attempts at completeness, since many titles do not even pretend to express the subjects of the book (need we cite Mr. Ruskin's?), and many equally fail in the attempt. As the field of literature increases, and not even a librarian can keep himself acquainted with the ground gone over by all the books under his care, a subject-catalogue as well as an author- and title-catalogue becomes a necessity, and, if it is well drawn up, though it may cost both money and time, they will be well spent. Volumes that appear unattractive enough to the general reader, and are far too numerous for the ordinary student to search through, become suddenly, through a subject-catalogue, of the greatest value to both of them. The books in a library whose contents are thus laid open to its frequenters will be read with profit much greater than would a considerable fraction more books whose title-page was all the introduction their readers had to them.

And the saving of time when it is completed will be immense. It will save the time of the librarian by preventing hundreds of inquiries being made at all, and still more by strengthening the hands of his assistants, who will be capable of working his catalogue to the utmost and answering a very large proportion of such inquiries as are made by readers who may be awkward at it; it will save the time of the busy man, who wants his information at once; it will save the time of the student who wants the most recent information which he can get; and it will save the time of all by making fewer changes of books necessary.

All this is doubly important in a Free Library, because, as any one taking an interest in these institutions will have marked, those of its readers who do not confine themselves to novels seldom take out books for the mere pleasure of reading, as the higher classes do. Reading has not yet become a recreation to them, but they go to the library as to a great encyclopædia to get information on certain subjects, often of the most technical character; and a catalogue that directs them to the very book they want doubles and trebles the value of the library to them. They have no time to read all the *critiques* and *résumés* of new books with which the press teems, and which make the style and contents of many such works familiar to readers of periodicals who may never have seen the works

themselves. Where hundreds go in an evening for books it is impracticable to allow them access to the shelves of the library to select them; while in an ordinary bare list of titles it is impossible for them to judge which book in a column will be found the one most to their requirements.

Like Dr. Billings, our Newcastle librarian has fully worked out a most important branch of a subject catalogue. Magazine literature in these days has become far too important to be treated by either a thrifty librarian or an inquiring student as "fugitive" and "ephemeral." All the newest science now appears first in journals, and all leaders of thought give their first expression of it in magazines and reviews. In this new catalogue therefore we are much pleased to see that not only is each volume of all important periodicals entered separately with its list of articles, but, as we have said, under the head of each subject a reference is given to all of such articles as bear upon it. By this means students who have read a standard work published a few years ago upon any subject will be not only guided but stimulated into reading the latest researches or theories which these publications contain. It is perhaps going beyond our subject, but we cannot help noticing how convenient for this important purpose a card-catalogue at a library is; in which cards containing the subject of each article down to the last number of all the magazines have been dropped into their places. Such an arrangement would make many students feel a printed catalogue to be ancient by the time it was published.

The selection of books as a whole is admirable—though of course few selections have been made under such favourable circumstances. We are rather surprised in so large a list to note the absence of books like Boyd Dawkins's "Cave-Hunting" and "Early Man in Britain," Clifford's "Lectures and Essays," Croll's "Climate and Time," Moseley's "Naturalist on board the *Challenger*," and Sir Wyville Thomson's book; Hæckel's "History of Creation" and "Evolution of Man"; Schliemann's "Troy" and Cesnola's "Cyprus"; Wallace's "Geographical Distribution of Animals," &c. And if some of these are so costly as to be confined to the Reference Library, as is probably the case here, still we are sorry to miss Wallace's "Tropical Nature," and R. Jefferies ("The Gamekeeper at Home") with his series of books teaching men to open their eyes as they move about the fields and lanes.

The printing is a credit to both printer and editor. It is almost as funny as the "Ingoldsby Legends" to read "Life and Remains of *Dean Hook*," by Barham! but it is plainly a slip, and the smallest errors are very scattered.

The Rules and Regulations are clumsy to enforce, which indeed will probably not be attempted, at any rate for long. The annoyance of having to get a guarantor practically shuts out many whose hitherto idle life might have taken a fresh start if books had been put into their hands freely. We have been very pleased to see that several large libraries have done away with this irritating system without any loss of property, and it seems a step backwards when a new institution like this starts with more rigid and inconvenient rules than many others. Indicators are capital things in libraries to which each reader goes for his own book as at a university, but only very few of the hundreds who exchange books every night at a flourishing Free Library are at all able to work with

them. Children are the usual messengers, not high enough to consult an Indicator of 20,000 volumes. It is an unmerciful rule that borrowers should return their books personally, and a downright unreasonable one that every book must be returned in a fortnight (Rule 17), NOT to be re-issued the same day (Rule 16), although we are told (p. vi.) that three-volume works are issued complete. Few Free Library readers can get through 600 or 800 pages in a fortnight. And surely it was not necessary to threaten each person who consults the catalogue with imprisonment *with whipping* if he defaces a book! It may be necessary to make such Draconian laws, but they should be brought forward to intimidate gross offenders, not flourished in the face of all whom we wish to attract. Such severe rules repel sensitive people, while from their very familiarity they lose their effect on the careless.

OUR BOOK SHELF

Botanische Jahrbücher für Systematik Pflanzengeschichte und Pflanzengeographie. Herausgegeben von A. Engler. Erster Band, zweites Heft. (Leipzig: Wilhelm Engelmann, 1880.)

THIS part includes four papers. The first is by W. O. Focke, on the natural divisions and geographical distribution of the genus *Rubus*. The characters chiefly discussed are:—1. Mode of growth or habit. 2. Forms of leaf which are very numerous: the duration of the leaf being also variable. 3. Characters derived from the stipules, which are considered of great value. 4. Inflorescence; and 5. the Structure of the flower. The number and size of the parts of the calyx and corolla vary, as also the colour of the corolla. The stamens vary in closely allied species, and while most of the species are hermaphrodite, some are unisexual. The structure of the gynoecium is very varied, the number of carpels being five or six in some, as in *R. dalibarda*, or above 100, as in *R. rosafolius*. The hairs (trichomes) on the different parts of the plant are very numerous and remarkable for the variety of structure shown; no other group, except perhaps some *Solanaceæ*, approaching the *Rubi* in this particular. In regard to the geographical distribution the most important points are:—1. The characteristic difference in the *Rubi* of Eastern Asia and Europe. 2. The predominance of European forms in the Atlantic, and of East Asian forms on the Pacific side of America. 3. The occurrence of south Chinese and north Indian types in Mexico and Peru. These peculiarities Focke would explain on geological grounds.

The second paper is by Franz Buchenau on the distribution of *Juncaceæ* over the world. The author gives a complete list of the species of the genera *Juncus*: *Luzula*, *Rostkovia*, *Marsippospermum*, *Oxychloë*, *Distichia*, and *Prionium*, and a table showing their distribution into regions nearly corresponding to those of Grisebach.

Koehne, in the third paper, gives the first portion of a monograph of the *Lythraceæ*, including a key to twenty-one genera. He admits and then describes thirty-one species with numerous varieties of *Rotala* (*Ammania*, Linn., Benth., and Hooker).

The last paper is by Engler. Contributions to the knowledge of the *Araceæ*, in which he describes some new *Araceæ* from the Indian Archipelago and Madagascar, and also directs attention to the cultivation of *Zamioculcas Loddigesii* from the detached leaflets of the remarkable pinnate leaf of the plant. A swelling occurs at the base of the leaflet, and in a few days a small tuber is produced which develops two buds, below each of which roots are formed. The plant has been propagated in this way by Herr Hild of the Kiel Botanic Garden.